LIGHTING

QMAXZ

USER MANUAL ENGLISH Version 2.11

QS-series

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1. INTRODUCTION

Thank you for choosing a QMAXZ QS-series product. The design & production are passed through quality control to ensure the superior liability. This manual provides necessary information regarding product safety, installation and operation of this product.

It is important to read ALL accompanying safety instructions and installation notes, instructions to avoid damage to the product and potential injury to yourself or others.

For the latest updates of product documentation and software, please visit the user support area of the QMAXZ website at **www.qmaxz.com**

NOTE: Information and Specifications in this document are subject to change without notice.
QMAXZ Lighting assumes no responsibility or liability for any errors or inaccuracies that may appear in this manual.

2. UNPACKING

Open the box according to the instructions on the out side of the box to avoid damage of the fixture!

Please check if the following items are packed together with the fixture:

- User Manual
- 2 mounting brackets
- Safety Cable
- Light Bulb

3. SAFETY INFORMATION

Warning! Read the safety instructions in this manual before installing and operating the fixture. This product is for professional use only and was designed for indoor use.

Please consider that unauthorized modifications on the fixture are forbidden due to safety reasons.

Never lift the fixture by holding it at the projector-head, as the mechanics may be damaged. Always hold the fixture at the transport handles.

Protection from burns and fire

- The minimum distance between the light-output and a flammable retarding object must be at least 0,8 meter. Keep flammable materials well away from the fixture.
- Do not illuminate surfaces within 2 meter of the fixture.
- Provide a minimum clearance of 0.1 meters around fans and air vents.
- The ambient temperature (Ta) must be within 2°C (36°F) and 33°C (92°F)
- Under normal conditions, the highest sectional surface temperature may be up to 90°C (194°F).
- Allow the fixture to cool for at least 15 minutes before handling.
- Never place filters or other materials over the lens or air entrances.

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Protection from electric shock

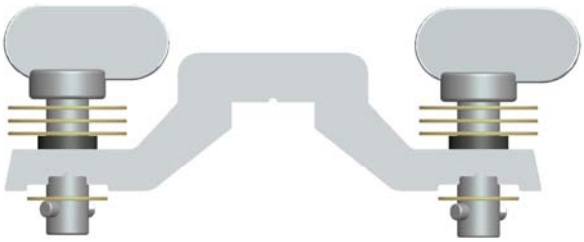
- Keep the fixture away from rain and moisture.
- Disconnect the fixture from AC power before removing or installing the lamp, fuses, or any part, and when not in use.
- This device falls under protection class I. Therefore always ground (earth) the fixture electrically.
- Make sure that the power cord is not damaged. Check the fixture and the power cord from time to time.
- Make sure that the available voltage is not higher than stated on the power panel.
- Make sure that the power-switch is set to OFF-position before you connect the device.
- Connecting the main power supply should be done by a qualified professional person.
- Refer for any service operation not described in this manual to a qualified technician.

Protection from UV radiation and lamp explosion

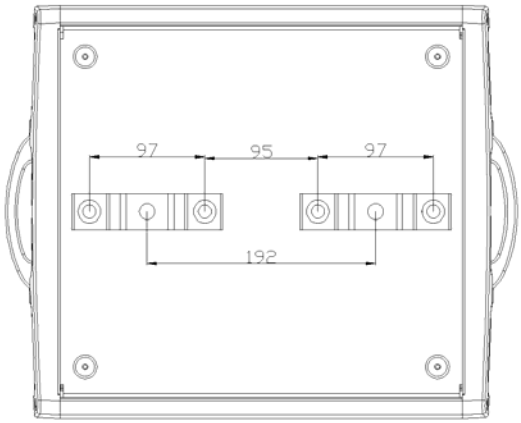
- Never operate the fixture with missing or damaged lenses and/or covers.
- When replacing the lamp, allow the fixture to cool for at least 30 minutes before opening the fixture or removing the lamp. Protect your hands and eyes with gloves and safety glasses.
- Do not stare directly into the light. Never look at an exposed lamp while it is lit.
- Replace the lamp if it becomes defective or worn out, or before usage exceeds the maximum service life.

4. RIGGING THE FIXTURE

Mounting Bracket



Fixture base



Attach both of the supplied mounting brackets to the fixture base by placing the brackets on the fixture base matching the mounting holes and turning the twist locks by 90 degrees clockwise until they are mounted tightly. Always use both brackets when rigging the fixture.

When hooks or clamps are connected to the brackets for rigging, verify that the hooks or clamps are undamaged and can bear at least 10 times the weight of the fixture.

To un-mount the brackets turn the twist lock by 90 degrees counter clockwise and release the brackets from the fixture base.

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Requirements for the rigging place:

When mounting the fixture vertically the P/T speed must be set to speed 6 in the fixture menu(default value).

- For safety the fixture should have a secondary fixing with a safety cord through the truss and the handle of fixture. The safety cord must bear at least 10 times the weight of the fixture.
- When rigging, de-rigging or servicing the fixture make sure that no people are staying in the area below the fixture and other endangered areas.
- Check that the tilt lock is released.
- Verify that there are no combustible materials or surfaces to be illuminated within 1.2 meters (42 inches) of the fixture and that there are no flammable materials nearby.
- Check that there is no possibility of heads or yokes colliding with other fixtures.
- If any accidents happen due to not following the above instructions, the manufacturer will not be responsible for it.

5. LAMP REPLACEMENT

Installing any other lamp then advised by the manufacturer may create a safety hazard or damage the fixture!

Model	Philips	Osram
QS250S	MSD 250/2, GY9,5	HSD250/60, GY9,5
QS250W	MSD 250/2, GY9,5	HSD250/60, GY9,5
QSE400S	MSR 400 SA/DE SFC10-4	HTI 400, SFC10-4
QSE400W	MSR 400 SA/DE, SFC10-4	HTI 400, SFC10-4
QSE575S	MSI 575W, SFC10-4	HMI 575W/GS, SFC10
QSE575W	MSI 575W, SFC10-4	HMI 575W/GS, SFC10

QMAXZ fixtures are tested with PHILIPS and Osram bulbs. QMAXZ also advises to use the same bulbs for replacement. QMAXZ is not responsible for any damage to the fixture when using other bulbs!

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5.1 Lamp Installation

Never run the device without lamp!
Do not touch the quartz bulb with bare fingers. Wear safety glasses and gloves when handling lamps.

Switching the lamp off before it's warmed up will decrease the lamp's life time.

To reduce the risk of explosion, replace the lamp when it reaches the limit of its average life time. Never exceed the lamp's average life time by more than 10%. *To read lamp hours from the control panel, please refer to display function menu chapter 7.* Replace the lamp immediately if it is deformed or in any way defective.

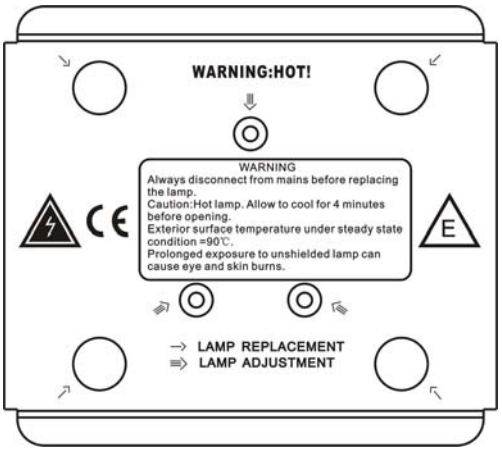
1. Disconnect the fixture from power and let it cool down for at least 30 minutes.
2. Loosen the 4 fastening screws on the lamp housing cover plate.
3. Carefully pull out the cover with the lamp assembly.
4. Remove the old lamp and insert the new lamp into the socket. Make sure that the lamp is installed tightly into the lamp socket.
5. Close the lamp housing cover and fasten the 4 screws again.

NOTE: All bulbs have a maximum lifetime, check lifetime regularly to avoid exceeding lifetime, otherwise it may result in deformation or explosion of the bulb, what may cause damage on the reflector or other parts of the fixture.

5.2 Lamp Adjustment

The lamp holders of all QMAXZ fixtures are aligned at the factory. Due the difference between lamps, fine adjustment may increase the light output.
QMAXZ advises to always re-adjust the lamp position when installing a new bulb

1. Strike the lamp and project an open white beam on a flat surface (wall).
2. Use the 3 screws (see picture) to centre the brightest part of the lamp (hot-spot).
3. Turn the screws one by one clockwise and/or counter clockwise until the hotspot is in the centre of the beam. If you cannot detect the hotspot, adjust the lamp until the output is evenly spread over the beam and the output is the brightest.


WARNING:HOT!
WARNING
Always disconnect from mains before replacing the lamp.
Caution:Hot lamp. Allow to cool for 4 minutes before opening.
Exterior surface temperature under steady state condition =90℃.
Prolonged exposure to unshielded lamp can cause eye and skin burns.
CE
E
LAMP REPLACEMENT
LAMP ADJUSTMENT

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6. POWER AND SIGNAL CONNECTION

6.1 AC Power

Do not connect the fixture to a dimmer system; doing so may damage the fixture.

Make sure the fixture is earthed (grounded). The AC mains supply must be fitted with a circuit breaker and earth fault switch(ground fault).
Check that the power supply voltage and frequency, are corresponding with the AC mains supply needed by the fixture(check AC mains panel on the fixture).

Before switching on the fixture verify that the tilt lock is released.

Power requirements:

- QS250S 220V ~ 240V AC 50Hz ~ 60Hz 380Watts
- QS250W 220V ~ 240V AC 50Hz ~ 60Hz 380Watts
- QSE400S 220V ~ 240V AC 50Hz ~ 60Hz 520Watts
- QSE400W 220V ~ 240V AC 50Hz ~ 60Hz 520Watts
- QSE575S 220V ~ 240V AC 50Hz ~ 60Hz 680Watts
- QSE575W 220V ~ 240V AC 50Hz ~ 60Hz 680Watts

Power lead Connection.

Wire Colour	Pin connection	Symbol
Yellow / Green	AC Earth (ground)	⏚
Blue	AC Neutral	N
Brown	AC Live	L

6.2 Fuse replacement

When the fixtures main fuse is blown it can be replaced with a new 20x5mm fuse , 5A/250v.

1. Disconnect the fixture from the mains supply.
2. Open the fuse holder in the power supply socket.
3. Replace the defective fuse and put the fuse holder back in. (At the factory a replacement fuse is put in the fuse holders spare pocket)
4. Connect the mains power again and turn on the fixture to check proper operation.

There is also a fuse on the main PCB board inside the fixture, for how to replace this please contact your dealer.

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6.3 Signal Connection

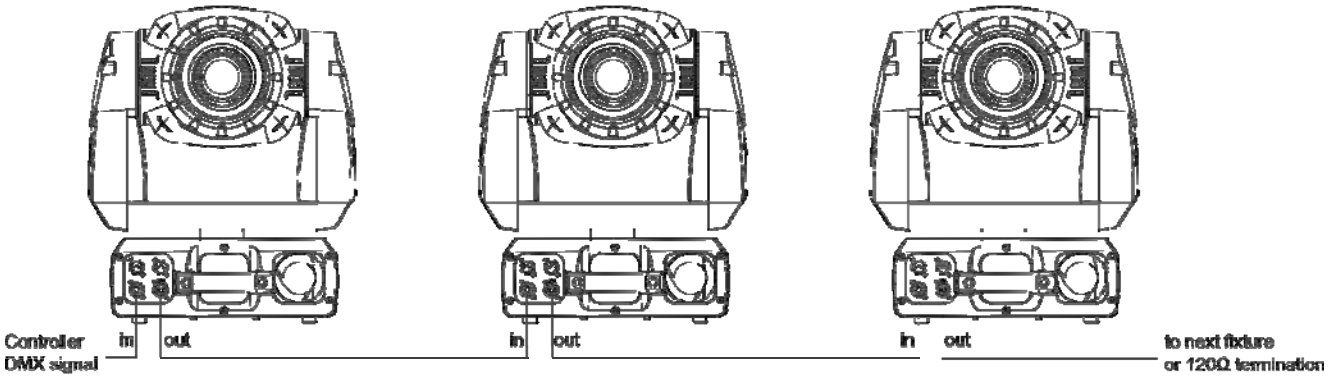
Important! Never connect more than 1 data input and 1 data output.

The QMAXZ fixtures have both 3 and 5 pin XLR sockets. The sockets are wired parallel, both inputs connect to both outputs. Never use 3 and 5 pin connectors at the same time. For the pin-layout see the following table.

	Pin-Layout	
Pin	**5 pin**	**3 pin**
1	Earth	Earth
2	Signal – (Cold)	Signal – (Cold)
3	Signal + (Hot)	Signal + (Hot)
4	No connection	
5	No connection	

Use a shielded twisted pair cable suitable for RS485 (120Ω) operation at 250 baud
Microphone type and other general purpose cabling such as two core audio or signal cables are not suitable for use with DMX512.

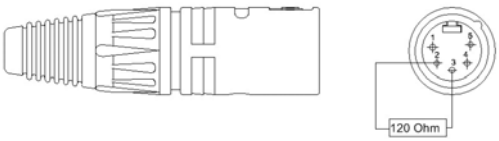
Connect the DMX output from the controller to the closest fixture input and connect the fixture DMX output to the next fixture DMX input until all fixtures are connected.



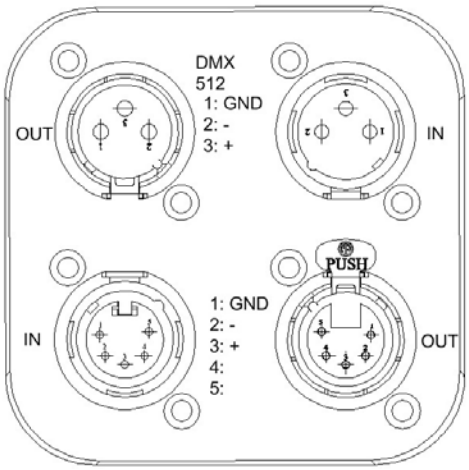
Do not overload the link. A maximum of 10 devices may be connected on a serial link.

Insert a male 120Ω XLR termination plug, in the last fixture. This to avoid signal reflection and interference.

DMX Terminator



DMX connection panel



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6.4 Fixture Start-up

After finishing the above operations and making sure all the fixtures have been installed with suitable bulbs and connected to a proper mains supply.

1. Release the tilt lock.
2. Turn on the power switch.
3. The display on the fixture will show the fixture model number, the software version number and then “RESET WAITING” and starts the reset procedure.
4. After the reset procedure the LCD display will show the DMX address and “DMX LINK” when a DMX signal is detected or “NO SIGNAL” when no DMX signal is detected.
5. When DMX is detected the fixture is ready to use.

In default menu the lamp will strike automatically, this can be set in the function menu. See chapter 7.

Also check if DMX control is set to ON in the function menu.

7. FIXTURE FUNCTION MENU

7.1 Function Menu Navigation

To enter the function menu, press [ESC] twice, then press [UP] / [DOWN] to scroll, [ENTER] to select.

When no button on the control panel is touched for more then 15 seconds the display will turn off and the menu will go back to the DMX start address, to turn it on simply press a button and repeat the above steps to enter the menu.

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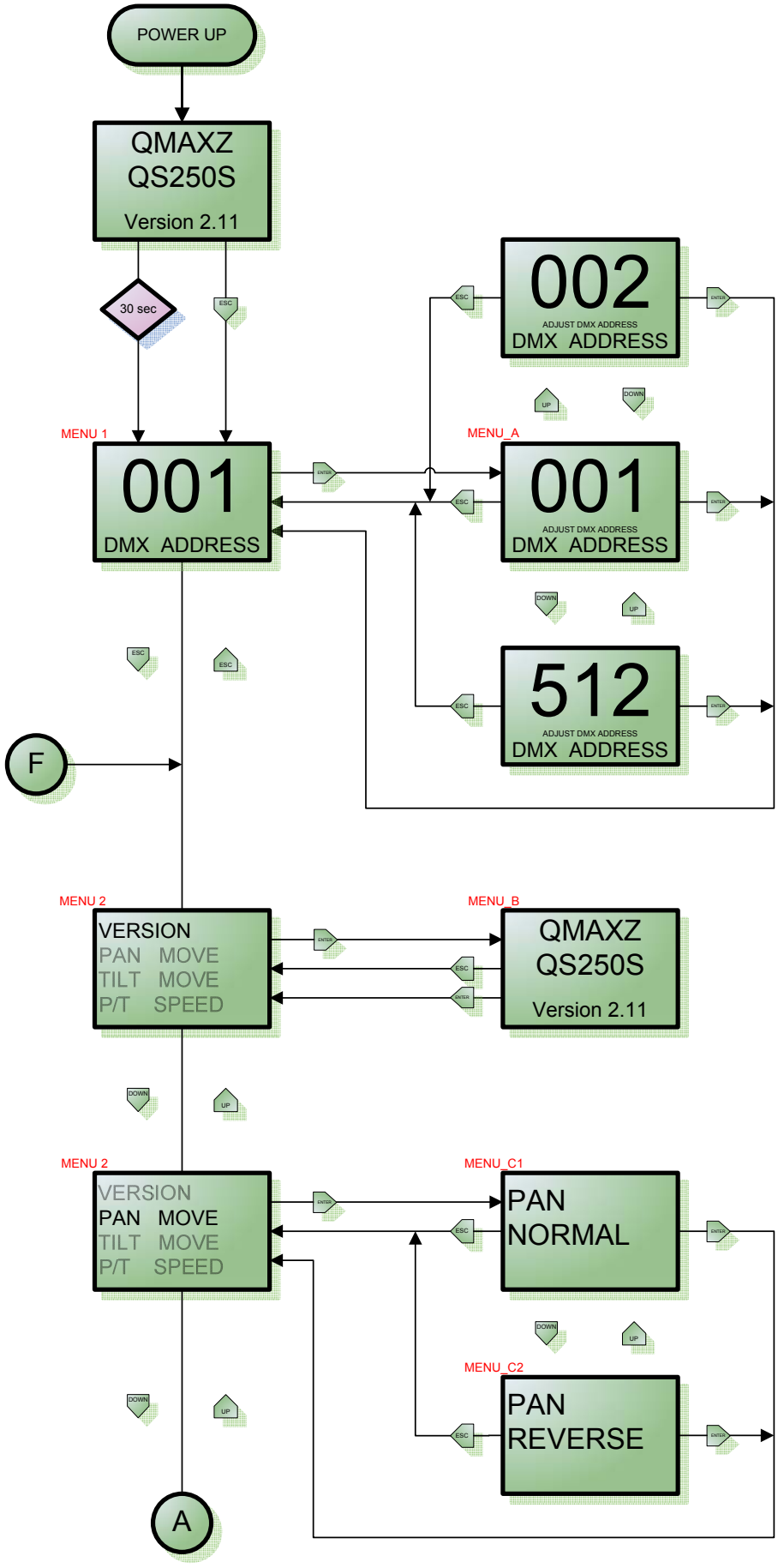
7.2 Function Menu QS250S/QSE400S/QS(E)575S.



[ENTER] > save new setting and return to menu 1

[ESC] > no change in setting and return to menu 1

[UP] > increase DMX address

[DOWN] > decrease DMX address

[ENTER] > return to menu 2

[ESC] > return to menu 2

[ENTER] > save new setting and return to menu 2

[ESC] > no change in setting and return to menu 2

[UP] > to pan normal

[DOWN] > to pan reverse

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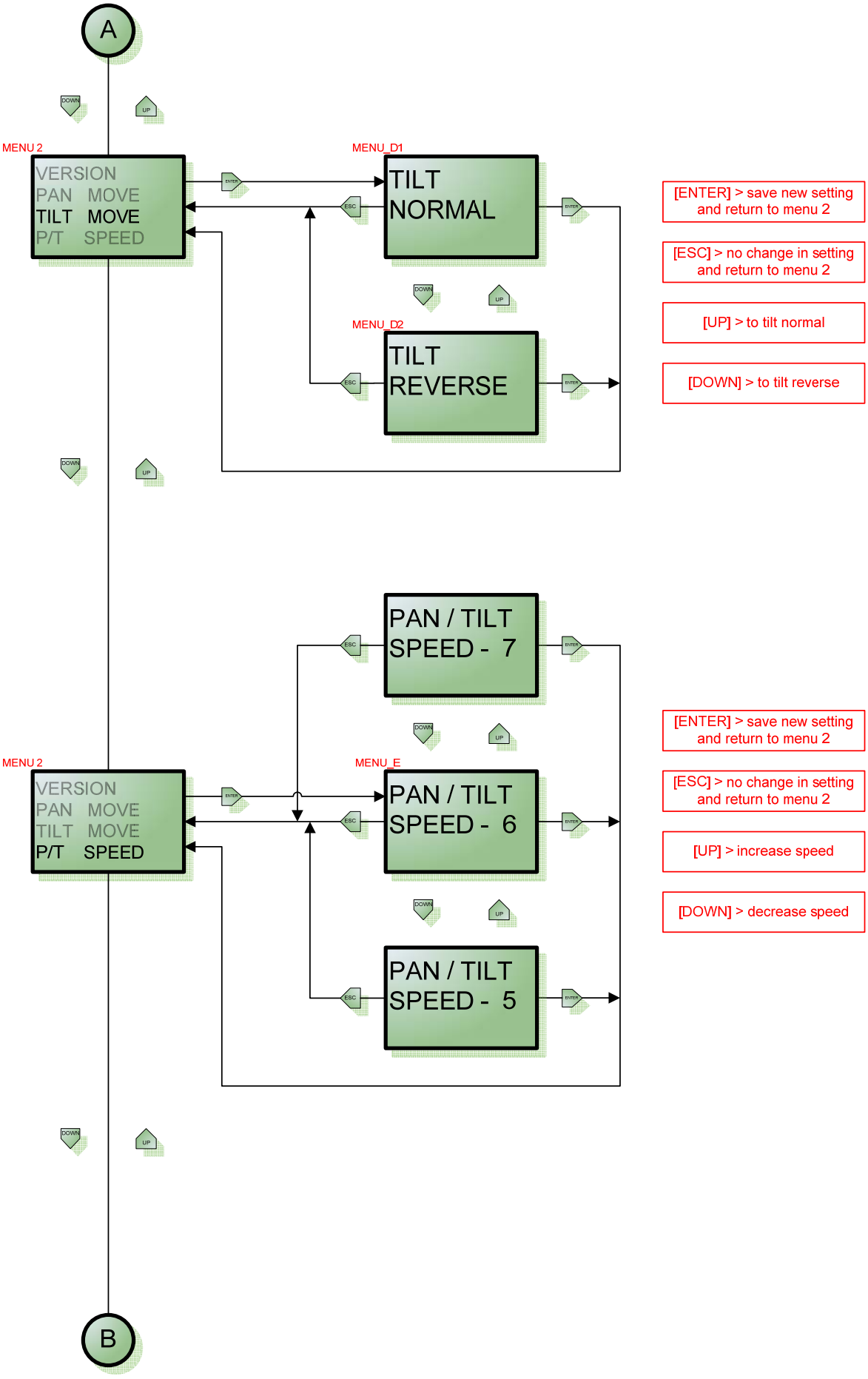
A
MENU 2
VERSION
PAN MOVE
TILT MOVE
P/T SPEED
MENU_D1
TILT
NORMAL
MENU_D2
TILT
REVERSE
[ENTER] > save new setting and return to menu 2
[ESC] > no change in setting and return to menu 2
[UP] > to tilt normal
[DOWN] > to tilt reverse
PAN / TILT
SPEED - 7
MENU 2
VERSION
PAN MOVE
TILT MOVE
P/T SPEED
MENU_E
PAN / TILT
SPEED - 6
PAN / TILT
SPEED - 5
[ENTER] > save new setting and return to menu 2
[ESC] > no change in setting and return to menu 2
[UP] > increase speed
[DOWN] > decrease speed
B

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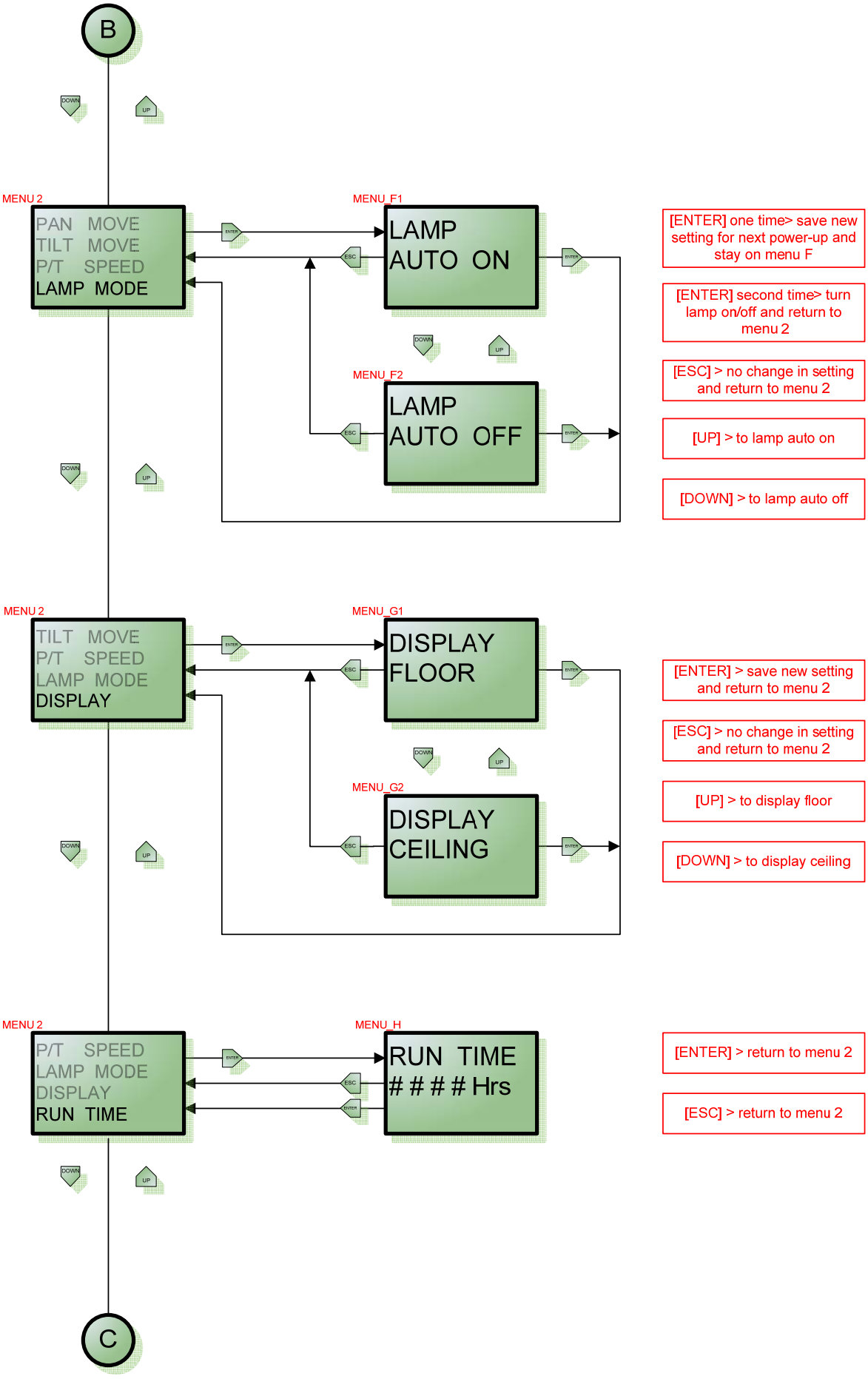
B
MENU 2
PAN MOVE
TILT MOVE
P/T SPEED
LAMP MODE
MENU_F1
LAMP
AUTO ON
MENU_F2
LAMP
AUTO OFF
[ENTER] one time> save new setting for next power-up and stay on menu F
[ENTER] second time> turn lamp on/off and return to menu 2
[ESC] > no change in setting and return to menu 2
[UP] > to lamp auto on
[DOWN] > to lamp auto off
MENU 2
TILT MOVE
P/T SPEED
LAMP MODE
DISPLAY
MENU_G1
DISPLAY
FLOOR
MENU_G2
DISPLAY
CEILING
[ENTER] > save new setting and return to menu 2
[ESC] > no change in setting and return to menu 2
[UP] > to display floor
[DOWN] > to display ceiling
MENU 2
P/T SPEED
LAMP MODE
DISPLAY
RUN TIME
MENU_H
RUN TIME
Hrs
[ENTER] > return to menu 2
[ESC] > return to menu 2
C

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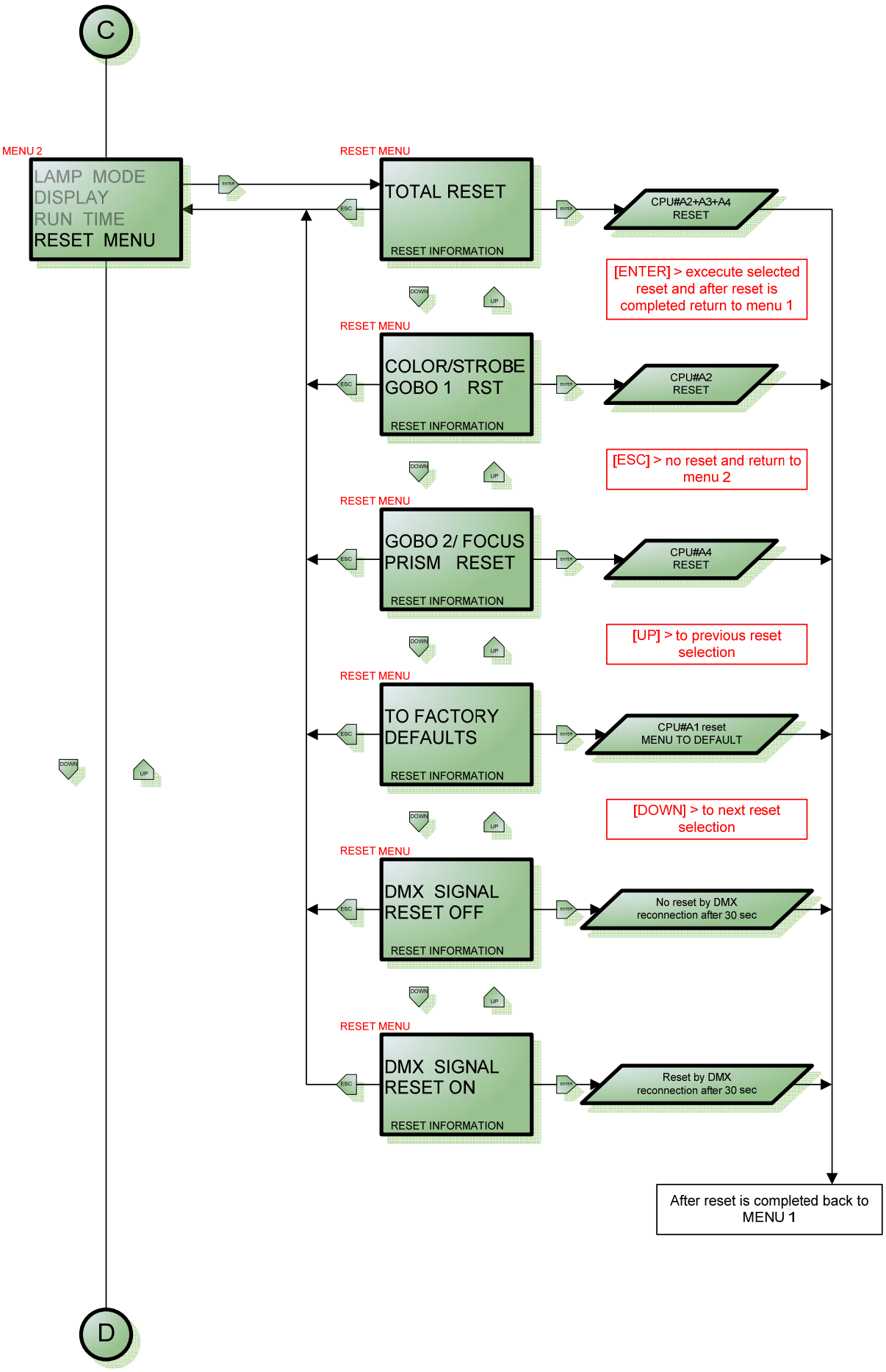
C
MENU 2
LAMP MODE
DISPLAY
RUN TIME
RESET MENU
RESET MENU
TOTAL RESET
RESET INFORMATION
CPU#A2+A3+A4
RESET
[ENTER] > excecute selected reset and after reset is completed return to menu 1
RESET MENU
COLOR/STROBE
GOBO 1 RST
RESET INFORMATION
CPU#A2
RESET
[ESC] > no reset and return to menu 2
RESET MENU
GOBO 2/ FOCUS
PRISM RESET
RESET INFORMATION
CPU#A4
RESET
[UP] > to previous reset selection
RESET MENU
TO FACTORY
DEFAULTS
RESET INFORMATION
CPU#A1 reset
MENU TO DEFAULT
[DOWN] > to next reset selection
RESET MENU
DMX SIGNAL
RESET OFF
RESET INFORMATION
No reset by DMX
reconnection after 30 sec
RESET MENU
DMX SIGNAL
RESET ON
RESET INFORMATION
Reset by DMX
reconnection after 30 sec
After reset is completed back to MENU 1
D

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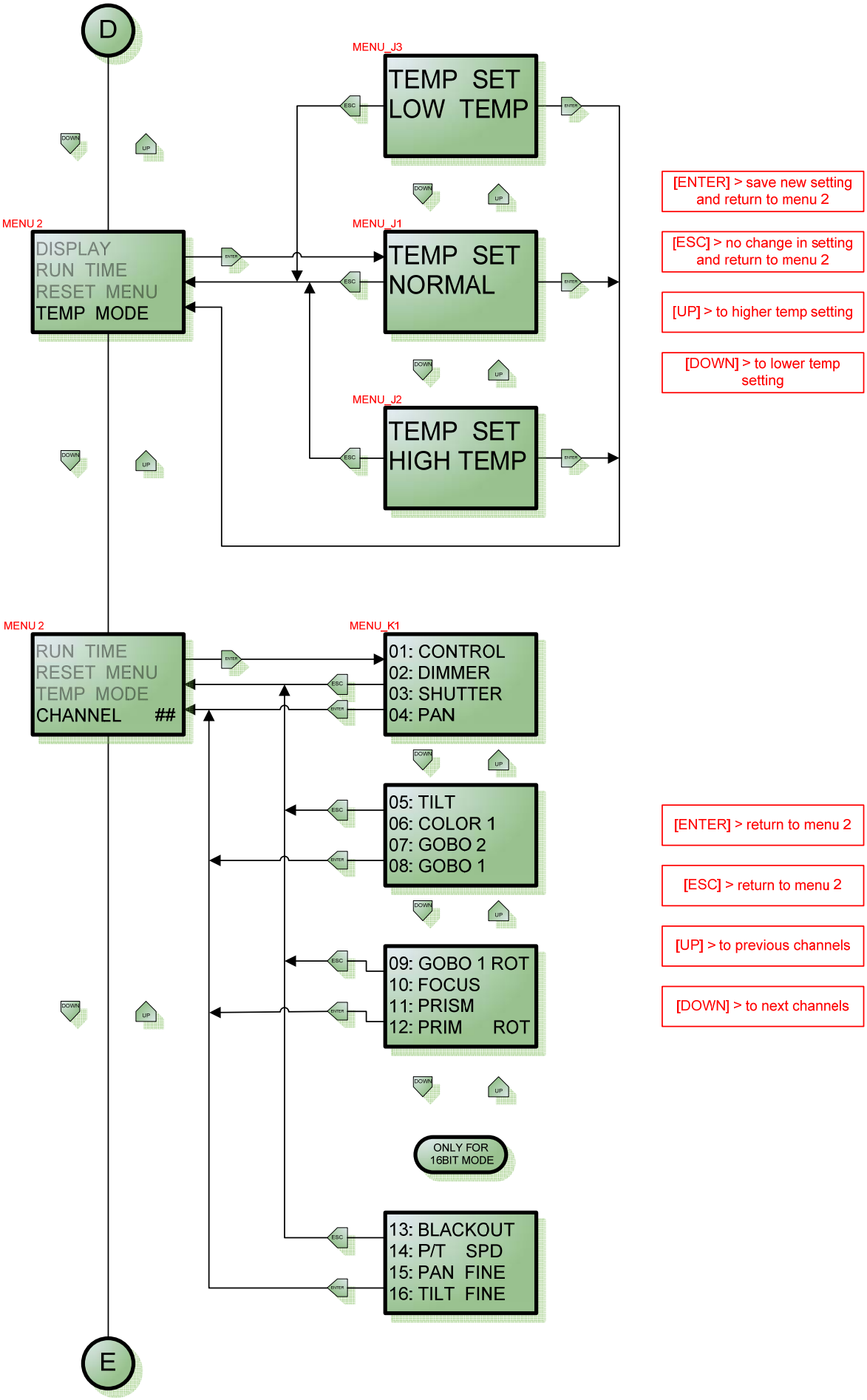
D
MENU_J3
TEMP SET
LOW TEMP
MENU 2
DISPLAY
RUN TIME
RESET MENU
TEMP MODE
MENU_J1
TEMP SET
NORMAL
MENU_J2
TEMP SET
HIGH TEMP
[ENTER] > save new setting and return to menu 2
[ESC] > no change in setting and return to menu 2
[UP] > to higher temp setting
[DOWN] > to lower temp setting
MENU 2
RUN TIME
RESET MENU
TEMP MODE
CHANNEL ##
MENU_K1
01: CONTROL
02: DIMMER
03: SHUTTER
04: PAN
05: TILT
06: COLOR 1
07: GOBO 2
08: GOBO 1
09: GOBO 1 ROT
10: FOCUS
11: PRISM
12: PRIM ROT
ONLY FOR 16BIT MODE
13: BLACKOUT
14: P/T SPD
15: PAN FINE
16: TILT FINE
[ENTER] > return to menu 2
[ESC] > return to menu 2
[UP] > to previous channels
[DOWN] > to next channels
E

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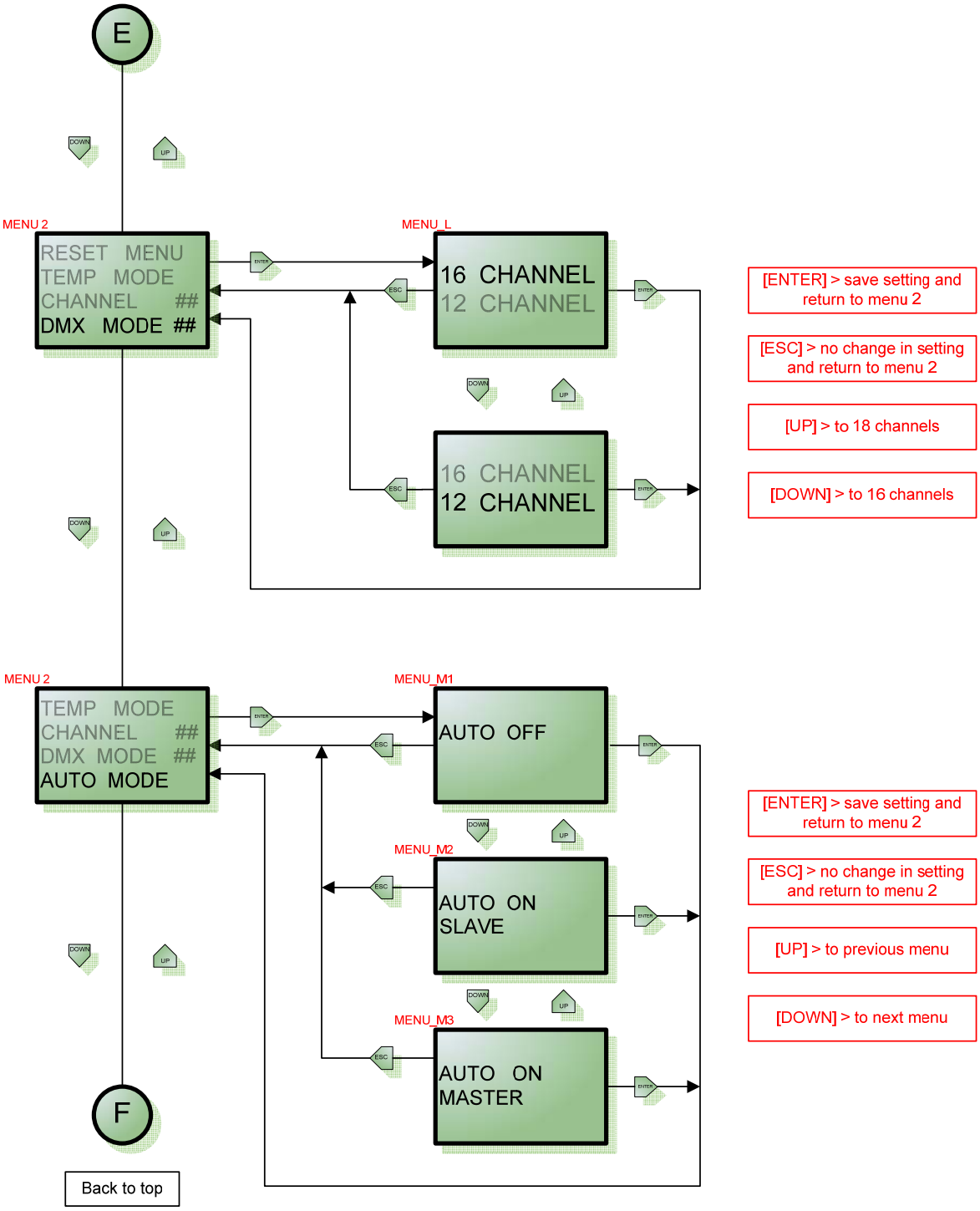
E
MENU 2
RESET MENU
TEMP MODE
CHANNEL ##
DMX MODE ##
MENU_L
16 CHANNEL
12 CHANNEL
16 CHANNEL
12 CHANNEL
[ENTER] > save setting and return to menu 2
[ESC] > no change in setting and return to menu 2
[UP] > to 18 channels
[DOWN] > to 16 channels
MENU 2
TEMP MODE
CHANNEL ##
DMX MODE ##
AUTO MODE
MENU_M1
AUTO OFF
MENU_M2
AUTO ON
SLAVE
MENU_M3
AUTO ON
MASTER
[ENTER] > save setting and return to menu 2
[ESC] > no change in setting and return to menu 2
[UP] > to previous menu
[DOWN] > to next menu
F
Back to top

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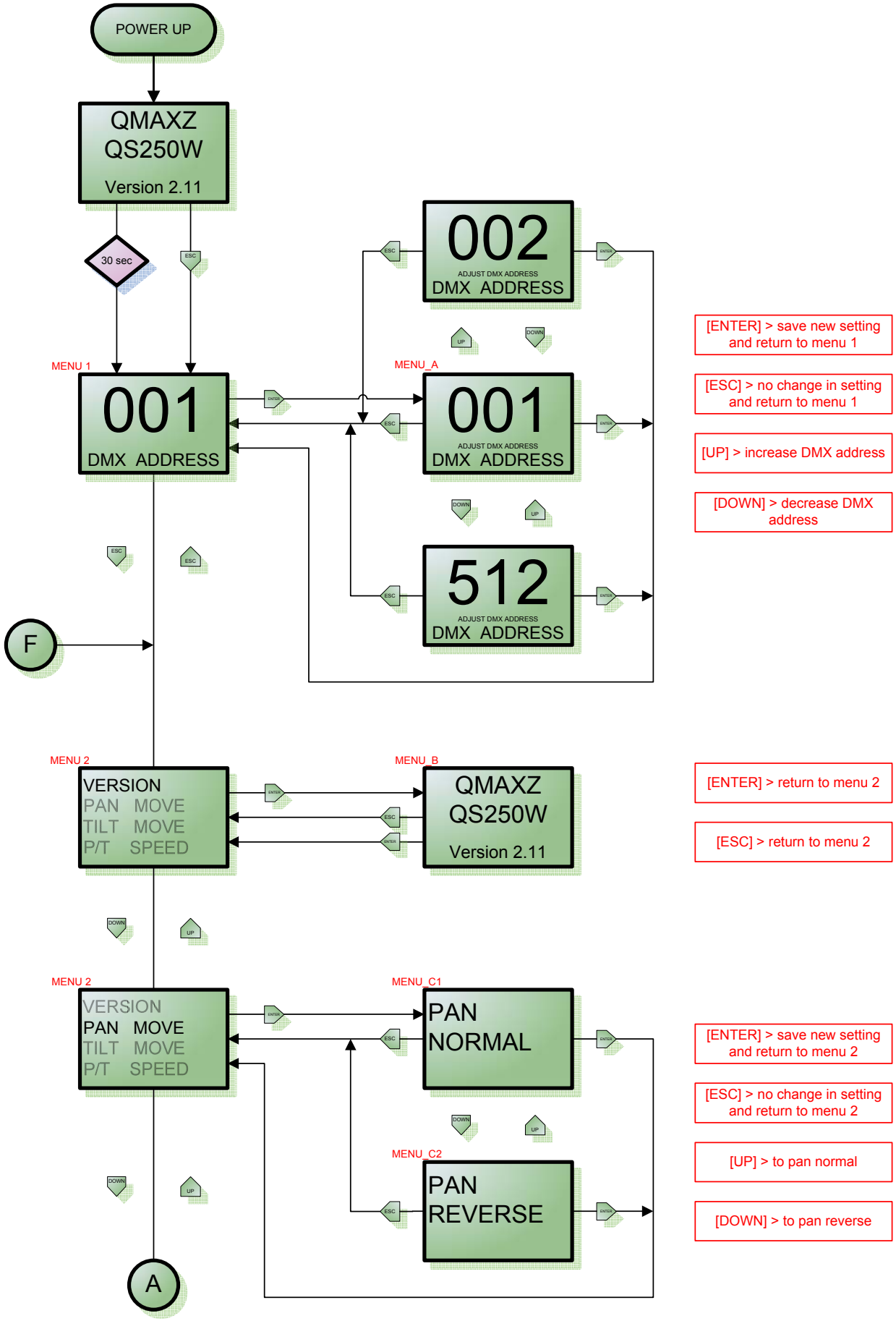
7.3 Function Menu
QS250W/QSE400W/QS(E)575W.



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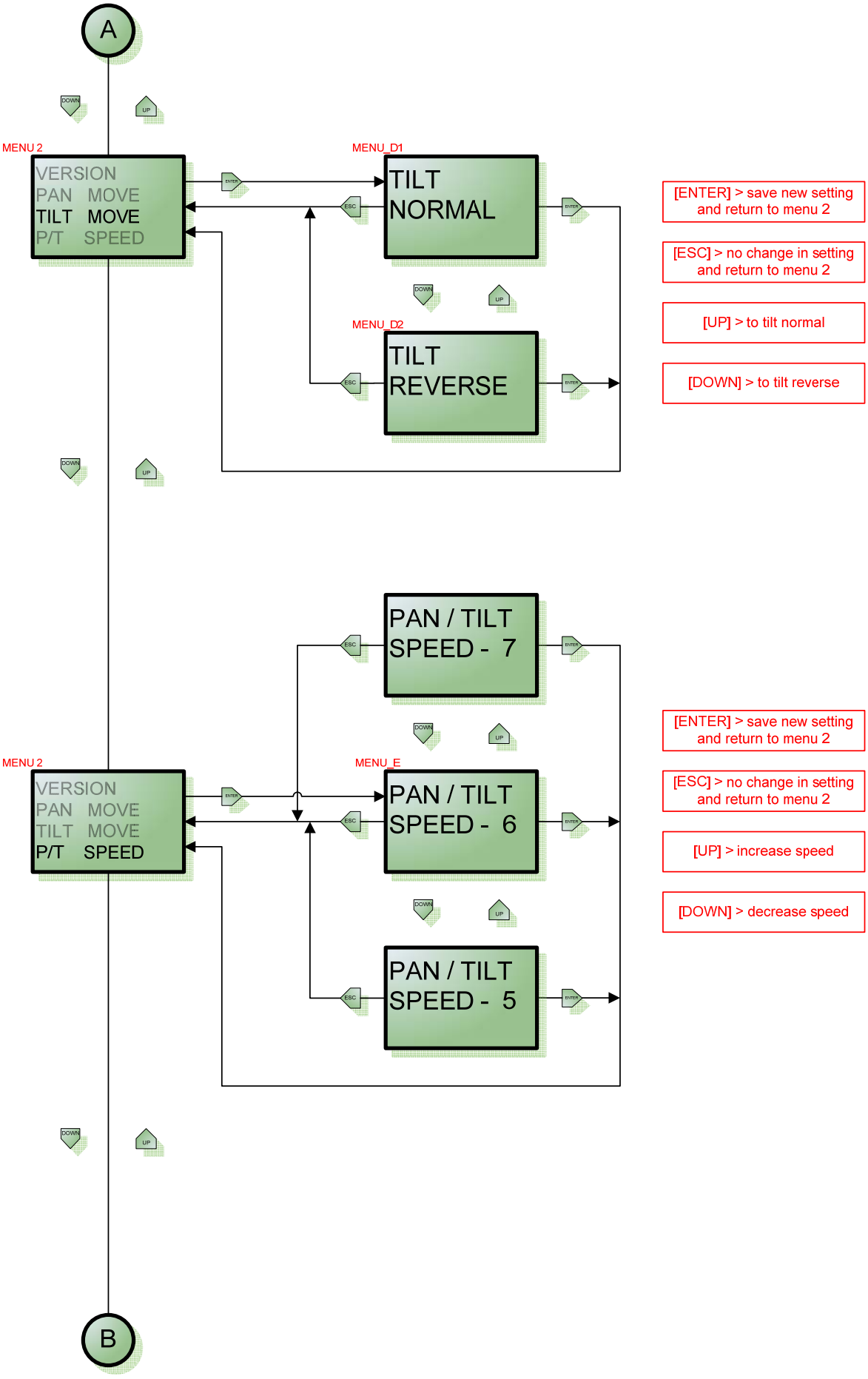
A
MENU 2
VERSION
PAN MOVE
TILT MOVE
P/T SPEED
MENU_D1
TILT
NORMAL
MENU_D2
TILT
REVERSE
[ENTER] > save new setting and return to menu 2
[ESC] > no change in setting and return to menu 2
[UP] > to tilt normal
[DOWN] > to tilt reverse
PAN / TILT
SPEED - 7
MENU 2
VERSION
PAN MOVE
TILT MOVE
P/T SPEED
MENU_E
PAN / TILT
SPEED - 6
PAN / TILT
SPEED - 5
[ENTER] > save new setting and return to menu 2
[ESC] > no change in setting and return to menu 2
[UP] > increase speed
[DOWN] > decrease speed
B

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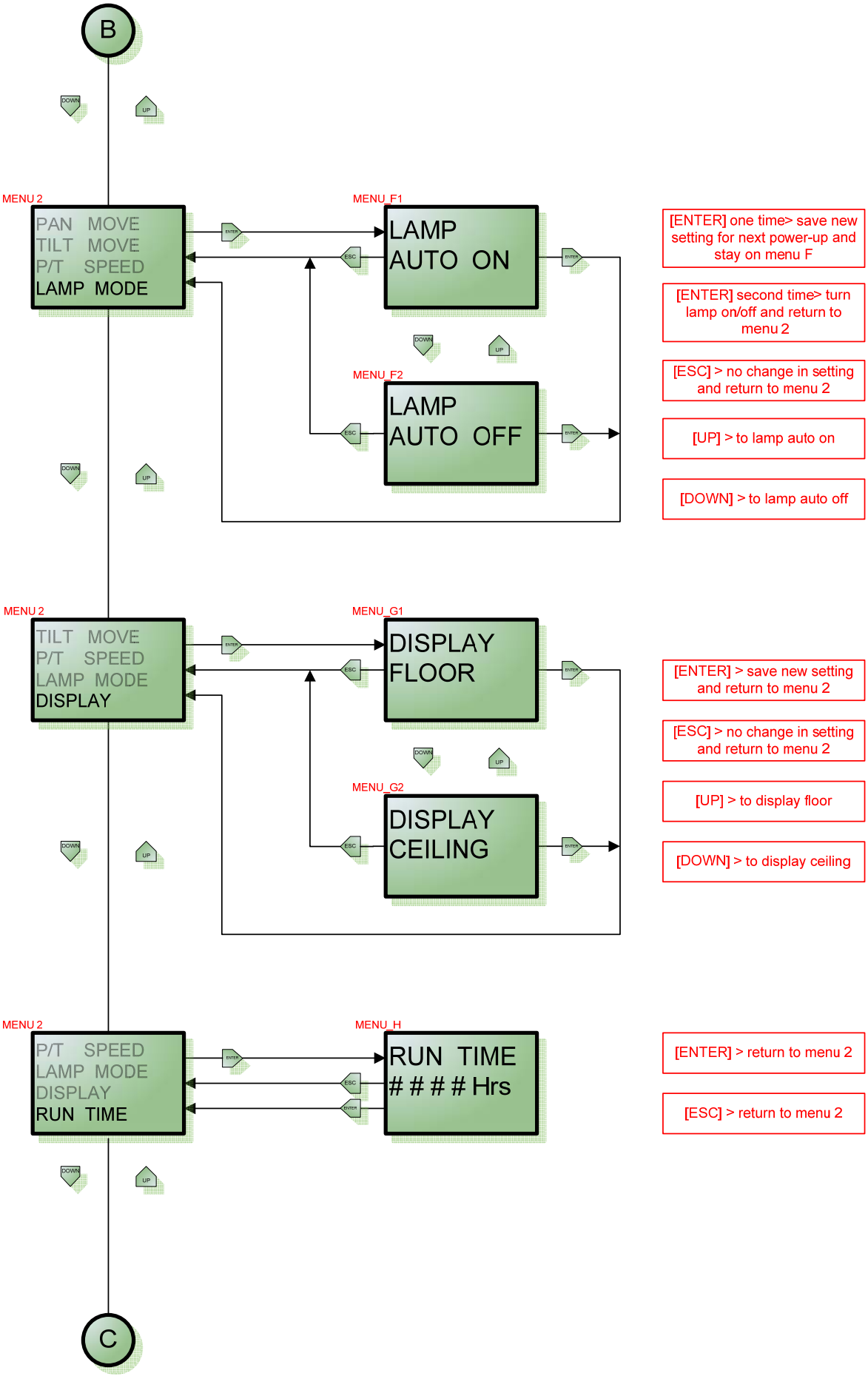
B
MENU 2
PAN MOVE
TILT MOVE
P/T SPEED
LAMP MODE
MENU_F1
LAMP
AUTO ON
MENU_F2
LAMP
AUTO OFF
[ENTER] one time> save new setting for next power-up and stay on menu F
[ENTER] second time> turn lamp on/off and return to menu 2
[ESC] > no change in setting and return to menu 2
[UP] > to lamp auto on
[DOWN] > to lamp auto off
MENU 2
TILT MOVE
P/T SPEED
LAMP MODE
DISPLAY
MENU_G1
DISPLAY
FLOOR
MENU_G2
DISPLAY
CEILING
[ENTER] > save new setting and return to menu 2
[ESC] > no change in setting and return to menu 2
[UP] > to display floor
[DOWN] > to display ceiling
MENU 2
P/T SPEED
LAMP MODE
DISPLAY
RUN TIME
MENU_H
RUN TIME
Hrs
[ENTER] > return to menu 2
[ESC] > return to menu 2
C

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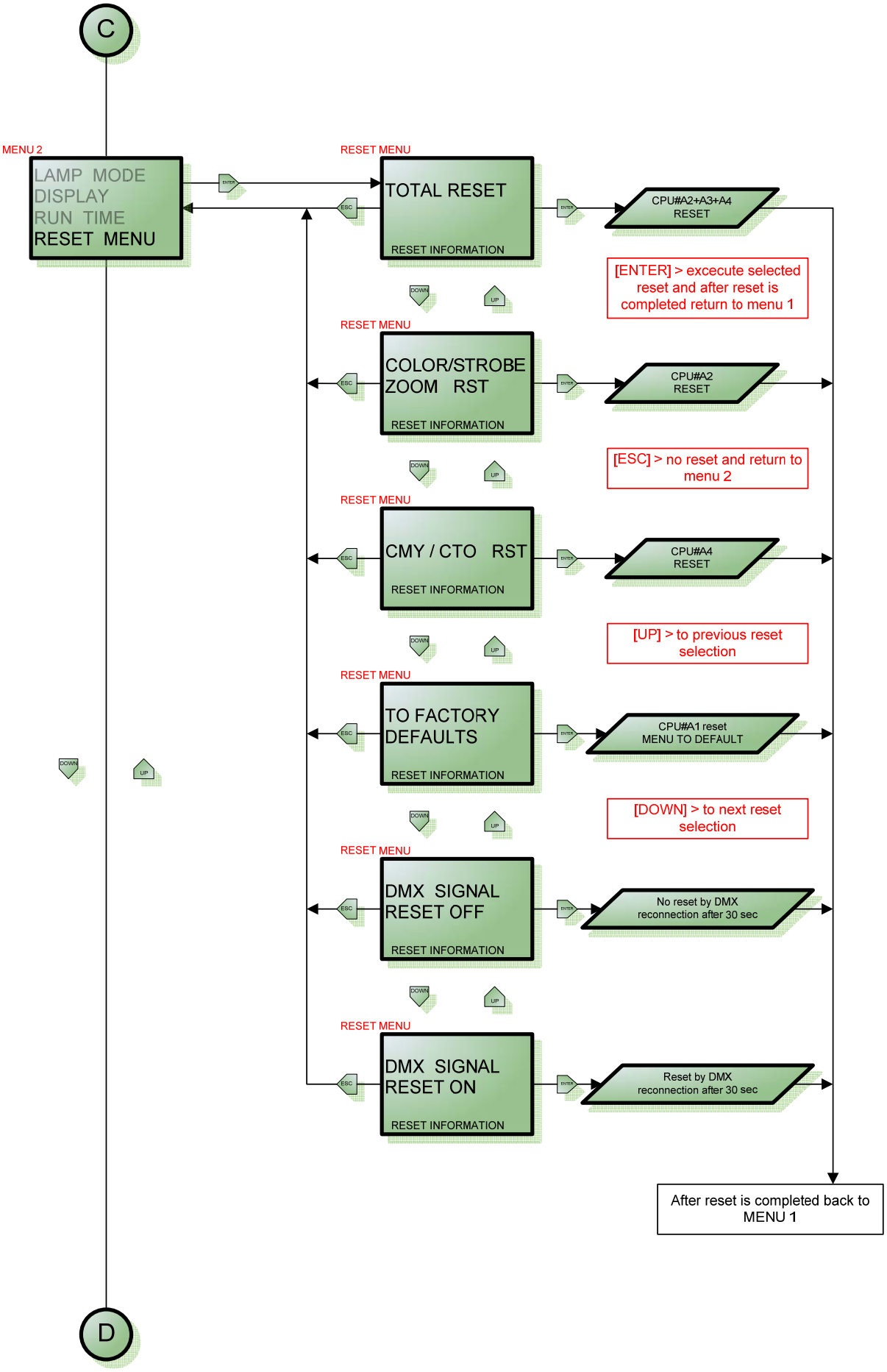
C
MENU 2
LAMP MODE
DISPLAY
RUN TIME
RESET MENU
RESET MENU
TOTAL RESET
RESET INFORMATION
CPU#A2+A3+A4
RESET
[ENTER] > excecute selected reset and after reset is completed return to menu 1
RESET MENU
COLOR/STROBE
ZOOM RST
RESET INFORMATION
CPU#A2
RESET
[ESC] > no reset and return to menu 2
RESET MENU
CMY / CTO RST
RESET INFORMATION
CPU#A4
RESET
[UP] > to previous reset selection
RESET MENU
TO FACTORY
DEFAULTS
RESET INFORMATION
CPU#A1 reset
MENU TO DEFAULT
[DOWN] > to next reset selection
RESET MENU
DMX SIGNAL
RESET OFF
RESET INFORMATION
No reset by DMX
reconnection after 30 sec
RESET MENU
DMX SIGNAL
RESET ON
RESET INFORMATION
Reset by DMX
reconnection after 30 sec
After reset is completed back to MENU 1
D

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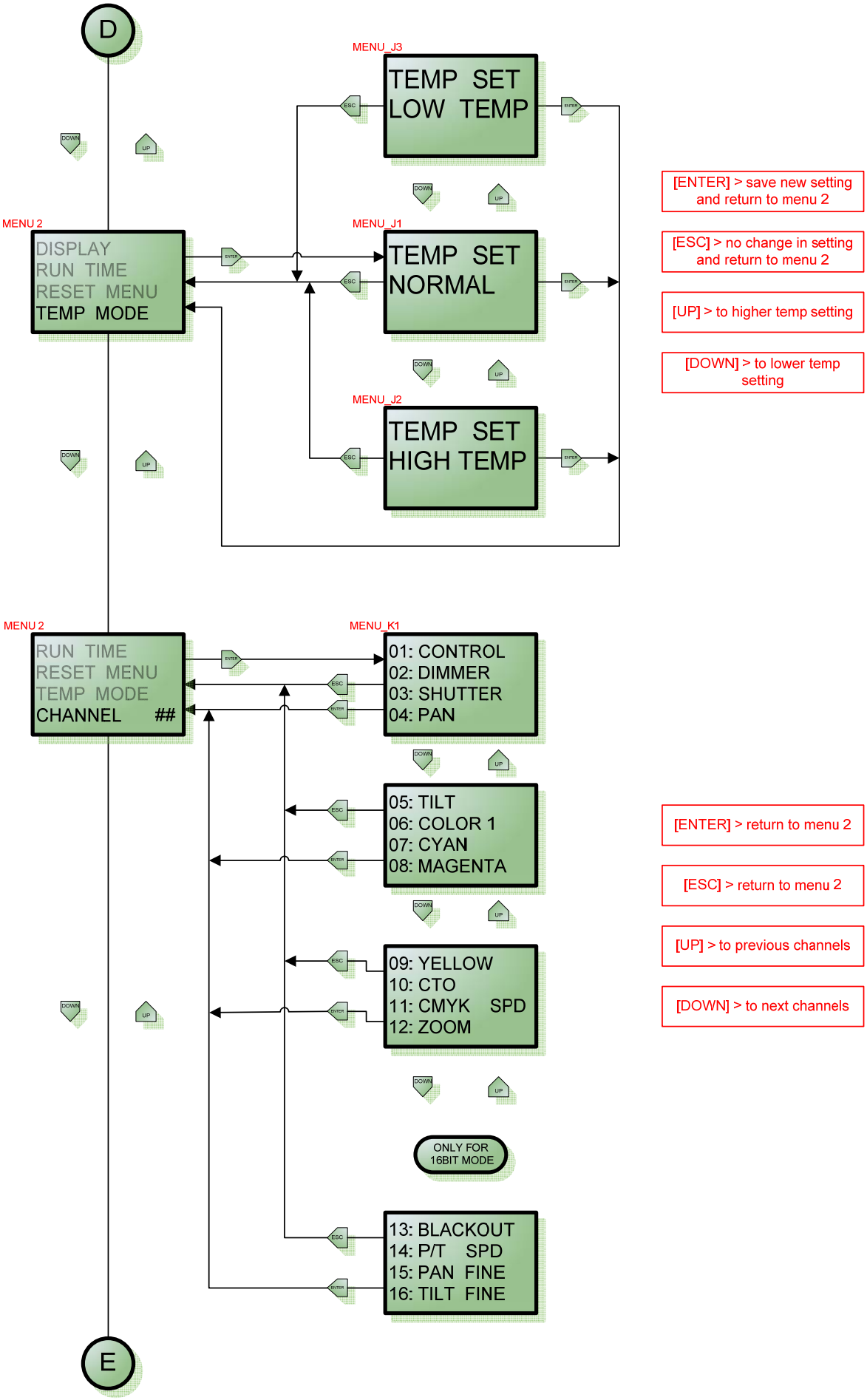
D
MENU_J3
TEMP SET
LOW TEMP
MENU 2
DISPLAY
RUN TIME
RESET MENU
TEMP MODE
MENU_J1
TEMP SET
NORMAL
MENU_J2
TEMP SET
HIGH TEMP
[ENTER] > save new setting and return to menu 2
[ESC] > no change in setting and return to menu 2
[UP] > to higher temp setting
[DOWN] > to lower temp setting
MENU 2
RUN TIME
RESET MENU
TEMP MODE
CHANNEL ##
MENU_K1
01: CONTROL
02: DIMMER
03: SHUTTER
04: PAN
05: TILT
06: COLOR 1
07: CYAN
08: MAGENTA
09: YELLOW
10: CTO
11: CMYK SPD
12: ZOOM
ONLY FOR 16BIT MODE
13: BLACKOUT
14: P/T SPD
15: PAN FINE
16: TILT FINE
[ENTER] > return to menu 2
[ESC] > return to menu 2
[UP] > to previous channels
[DOWN] > to next channels
E

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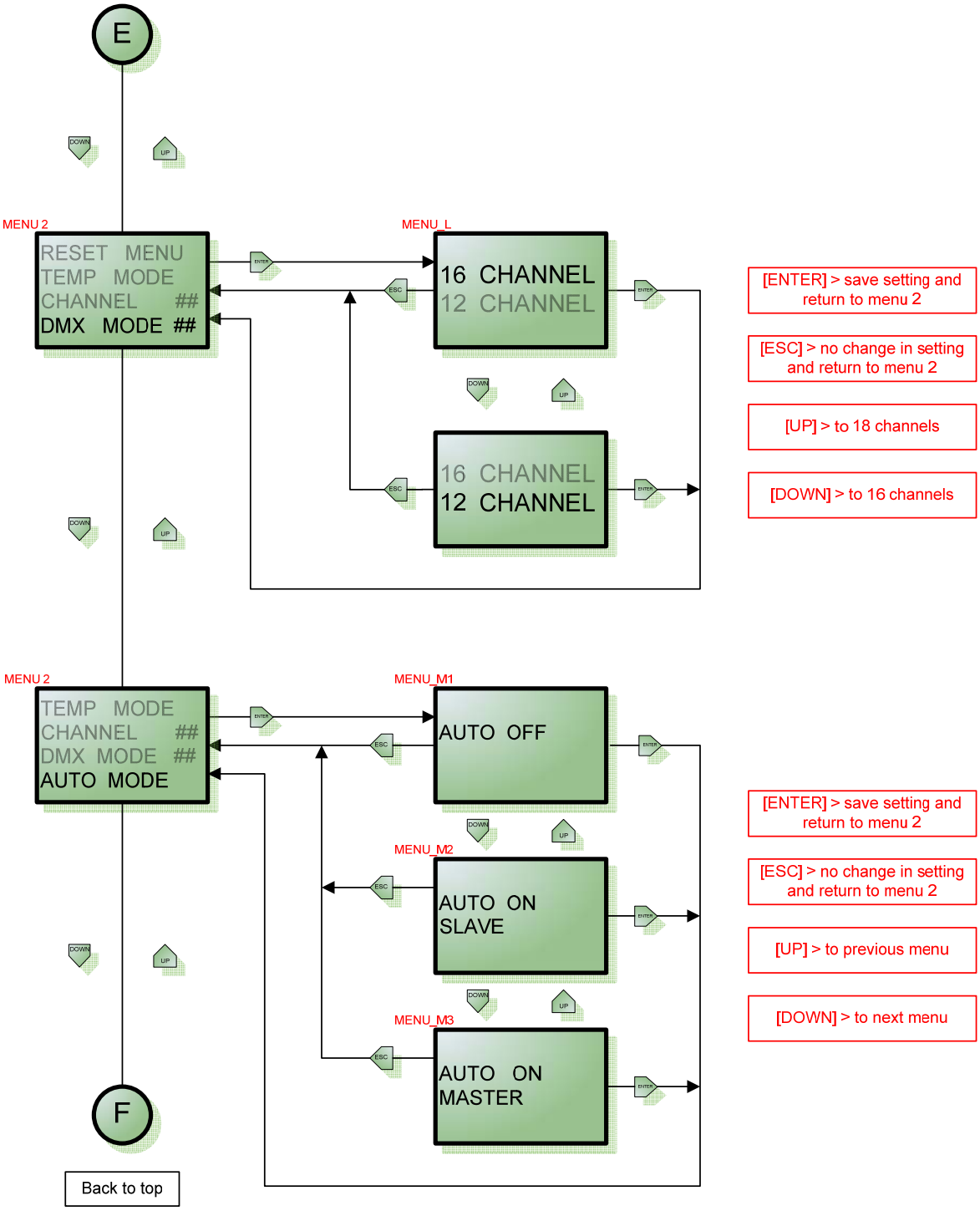
E
DOWN
UP
MENU 2
RESET MENU
TEMP MODE
CHANNEL ##
DMX MODE ##
ENTER
ESC
MENU_L
16 CHANNEL
12 CHANNEL
[ENTER] > save setting and return to menu 2
[ESC] > no change in setting and return to menu 2
[UP] > to 18 channels
[DOWN] > to 16 channels
MENU 2
TEMP MODE
CHANNEL ##
DMX MODE ##
AUTO MODE
MENU_M1
AUTO OFF
MENU_M2
AUTO ON
SLAVE
MENU_M3
AUTO ON
MASTER
[ENTER] > save setting and return to menu 2
[ESC] > no change in setting and return to menu 2
[UP] > to previous menu
[DOWN] > to next menu
F
Back to top

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7.4 Menu Functions

DMX ADDRESS

Setting the DMX start address, use [UP] or [DOWN] buttons to select, press [ENTER] to save.

To make sure every fixture reacts to the control signal a start address should be given to every QMAXZ fixture. This start address is the first channel used to receive instructions from the controller. To ensure independent control it is important that every fixture has a unique address. However they may share the same addresses if identical behaviour is desired.

When the address of the first fixture is 001, the start address of the next fixture depends on the number of DMX channels used by the previous one. QM-series spot fixtures are 16 channels@8Bit and 18 channels@16Bit, QM-series wash fixtures are 12 channels@8Bit and 16 channels@16Bit.

Example:	First fixture QM575S @16bit (18 channels)	start address 001
	second fixture QM575S @16bit (18 channels)	start address 019
	third….	start address 037

VERSION
Press [ENTER] to view fixture model number and software version, press [ENTER] or [ESC] to return.

PAN MOVE
Setting the PAN rotation direction, use [UP] or [DOWN] buttons to select, press [ENTER] to save.
Default value is NORMAL.

TILT MOVE
Setting the TILT rotation direction, use [UP] or [DOWN] buttons to select, press [ENTER] to save.
Default value is NORMAL.

P/T SPEED
Setting the PAN/TILT rotation speed, use [UP] or [DOWN] buttons to select, press [ENTER] to save.
Default value is 6.

LAMP MODE
Setting the start-up lamp status, use [UP] or [DOWN] buttons to select, press [ENTER] to save.
Default value is AUTO LAMP ON.

DISPLAY
Setting the display mode, use [UP] or [DOWN] buttons to select, press [ENTER] to save.
Default value is FLOOR.

RUN TIME
View the fixtures runtime, press [ENTER] or [ESC] to return.

RESET MENU
Perform a complete or partitional reset, set to factory default, set DMX reset mode, use [UP] or [DOWN] buttons to select, press [ENTER] to perform or save.

TEMP MODE
Set ambient temperature mode, use [UP] or [DOWN] buttons to select, press [ENTER] to save.
Default value is normal.

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CHANNEL
View fixture channel assignment, use [UP] or [DOWN] buttons to scroll, press [ENTER] or [ESC] to return.

DMX MODE
Setting DMX control to 8Bit or 16Bit, use [UP] or [DOWN] buttons to select, press [ENTER] to save
Default setting is 16Bit.

AUTO MODE
Setting DMX control on/off and AUTO mode, use [UP] or [DOWN] buttons to select, press [ENTER] to save. AUTO OFF> control is set to DMX input, AUTO ON MASTER> fixture runs a pre programmed sequence, AUTO ON SLAVE> fixture follows a connected fixture that is set to AUTO ON MASTER.
Default value is AUTO OFF.

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7.5 Control channels

Model	QS250S		QS250W		QSE400S		QSE400W		QS(E)575S		QS(E)575W	
Function	8Bit	16Bit	8Bit	16Bit	8Bit	16Bit	8Bit	16Bit	8Bit	16Bit	8Bit	16Bit
Control	√	√	√	√	√	√	√	√	√	√	√	√
Dimmer	√	√	√	√	√	√	√	√	√	√	√	√
Shutter/strobe	√	√	√	√	√	√	√	√	√	√	√	√
Pan	√	√	√	√	√	√	√	√	√	√	√	√
Tilt	√	√	√	√	√	√	√	√	√	√	√	√
Iris												
Colour wheel 1	√	√	√	√	√	√	√	√	√	√	√	√
Colour wheel 2												
Pan fine		√		√		√		√		√		√
Tilt fine		√		√		√		√		√		√
pan/tilt speed		√		√		√		√		√		√
Blackout		√		√		√		√		√		√
Gobo wheel 1	√	√			√	√			√	√		
Gobo wheel 2	√	√			√	√			√	√		
Gobo 1 rotation	√	√			√	√			√	√		
Focus	√	√			√	√			√	√		
Prism	√	√			√	√			√	√		
Prism rotation	√	√			√	√			√	√		
Cyan			√	√			√	√			√	√
Magenta			√	√			√	√			√	√
Yellow			√	√			√	√			√	√
CTO			√	√			√	√			√	√
CMY speed			√	√			√	√			√	√
Zoom			√	√			√	√			√	√

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8. GOBO AND GOBO SIZE

Unplug from mains before changing any gobo and let the fixture cool down completely.

8.1 Fixed / Metal Gobos overall size 28mm, image size 22mm

Standard factory installed:

QGM1 QGM2 QGM3 QGM4 QGM5

QGM6 QGM7 QGM8

Optional gobo's:

QGM9 QGM10 QGM11 QGM12 QGM13

8.2 Rotating / Glass Gobos overall size 28mm, image size 21,5mm

Standard factory installed:

QGG1 QGG2 QGG3

QGG4 QGG5 QGG6

Optional gobo's:

QGG7 QGG8 QGG9 QGG10 QGG11

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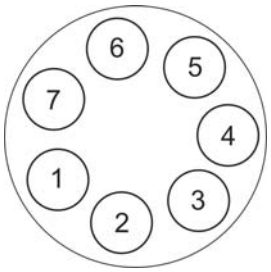
8.3 Gobo positions

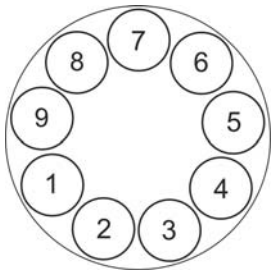
Gobo positions Wheel 1(rotating):

Position 1 = QGG1
Position 2 = QGG2
Position 3 = QGG3
Position 4 = QGG4
Position 5 = QGG5
Position 6 = QGG6
Position 7 = Open



Gobo positions Wheel 2(fixed):

Position 1 = QGM1
Position 2 = QGM2
Position 3 = QGM3
Position 4 = QGM4
Position 5 = QGM5
Position 6 = QGM6
Position 7 = QGM7
Position 8 = QGM8
Position 9 = Open



8.4 Gobo replacement

The fixture head has a top and bottom cover, to determine witch cover is the top or bottom turn the fixture head horizontally with the lamp housing back plate towards you, the text on the back plate should be in normal readable position.

Replacing fixed / metal gobo

1. Disconnect the fixture from mains power and let it to cool down completely.
2. Turn the fixture head horizontally with the bottom cover on top, and lock the head with the tilt lock.
3. Remove the bottom cover of the fixture using a Philips head screwdriver to loosen the 4 screws, the screws are locked for falling out so the can not be taken out completely, lift the cover and loosen the safety cable on the back side.
4. Remove the white glue with a sharp small knife carefully, the glue is attached in the factory as an extra precaution to prevent the gobo of coming out, under normal conditions the glue is not necessary but QMAXZ advises to put glue on when the gobo is replaced.
5. Lift the gobo a little bit from the wheel and pull it towards you to take it out.
6. Put in a new gobo by sliding it in the pocket on the wheel, and secure it with a drop of glue.
7. Attach the safety cable of the cover again, and put the cover back on, tighten the 4 screws.

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Replacing rotating / glass gobo

1. Disconnect the fixture from mains power and let it to cool down completely.
2. Turn the fixture head horizontally with the top cover on top, and lock the head with the tilt lock.
3. Remove the top cover of the fixture using a Philips head screwdriver to loosen the 4 screws, the screws are locked for falling out so the can not be taken out completely, lift the cover and loosen the safety cable on the back side.
4. Lift the rotating gobo-holder a little bit from the wheel and pull it towards you to take it out.
5. Remove the fixation spring from the holder and take out the gobo.
6. Put in a new glass gobo, with the most reflective side towards the lamp.
7. Put back the gobo holder by sliding it into the pressing clamp and then press it towards the wheel lock into the snaps.
8. Attach the safety cable of the cover again, and put the cover back on, tighten the 4 screws.

9. MAINTENANCE

Unplug from mains before starting any maintenance work and let the fixture cool down completely.

It is essential to keep the fixture clean from dust, dirt and smoke-fluid residues. Therefore we recommend to clean the fans every 15 days, depending on the circumstances.
Remove dust from fans and ventilation inlet with a soft brush, cotton swab, vacuum, or compressed air. The lens, gobo's and dichroic colours should also be cleaned monthly to ensure a optimum light output, but will also allow the fixture to function reliably throughout its life.
A soft lint-free cloth moistened with any good glass cleaning fluid is recommended, under no circumstances should solvents be used!

The QMAXZ fixture does not require lubrication under normal circumstances. The slides for the zoom and focus lens cars are lubricated with a long-lasting Teflon-based grease that can be reapplied by you're dealer.

Check mains power plug regularly, for connection and mechanical liability.

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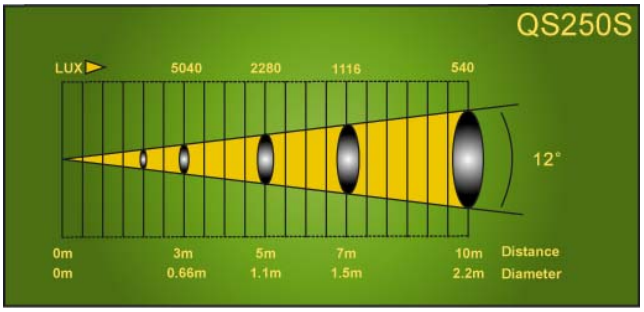
10. QS-series TECHNICAL DATA

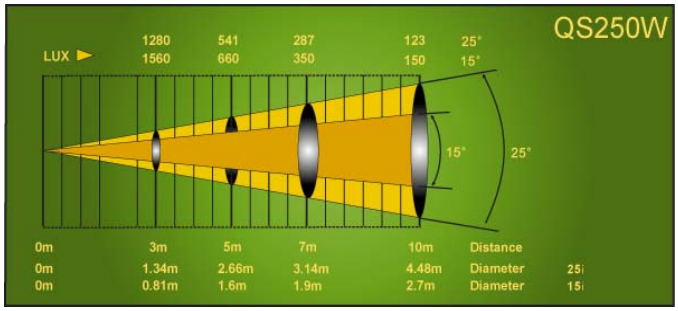
10.1 Technical Data

Model	QS250S	QS250W	QSE400S	QSE400W	QS(E)575S	QS(E)575W
Channels (8Bit)	12	12	12	12	12	12
Channels (16Bit)	16	16	16	16	16	16
DMX Protocol	DMX 512	DMX 512	DMX 512	DMX 512	DMX 512	DMX 512
Voltage (V)	220~240V	220~240V	220~240V	220~240V	220~240V	220~240V
Frequency (Hz)	50~60Hz	50~60Hz	50~60Hz	50~60Hz	50~60Hz	50~60Hz
Power Consumption	380W	380W	520W	520W	680W	680W
Pan	540°	540°	540°	540°	540°	540°
Tilt	250°	250°	250°	250°	250°	250°
Pan Fine	3,6°	3,6°	3,6°	3,6°	3,6°	3,6°
Tilt Fine	3°	3°	3°	3°	3°	3°
Dimensions Fixture	575x474x347	575x474x347	575x474x347	575x474x347	575x474x347	575x474x347
Dimension Carton	648x484x492	648x484x492	648x484x492	648x484x492	648x484x492	648x484x492
Net. Weight	28Kg	28Kg	22Kg	22Kg	28/22Kg	28/22Kg
Gross Weight	31Kg	31Kg	25Kg	25Kg	31/25Kg	31/25Kg

10.2 Photometric Data

QS250S/QS250W





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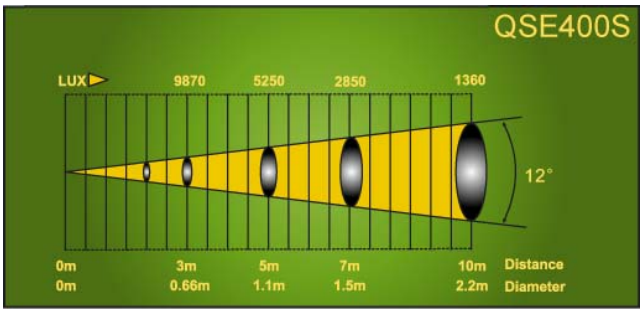
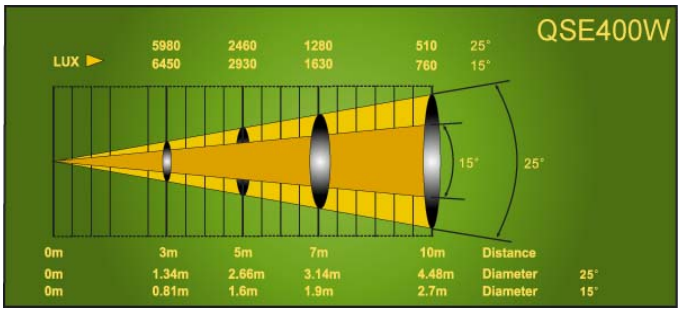
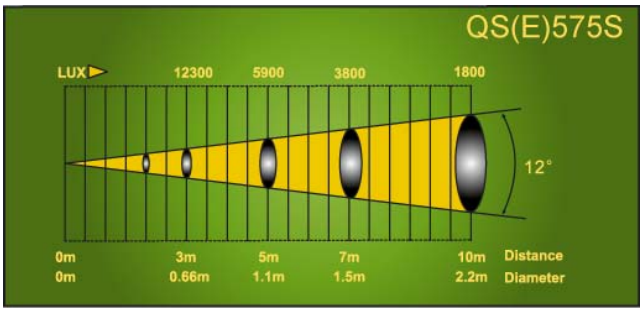
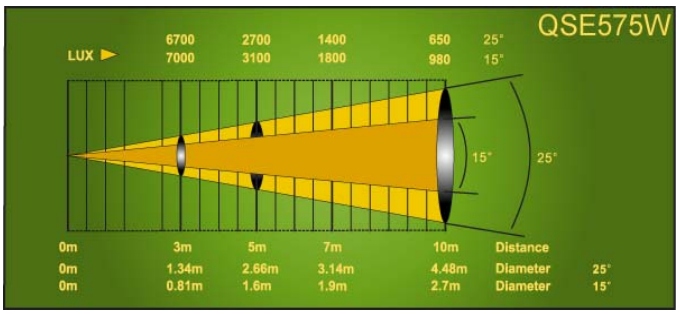
QSE400S/QSE400W



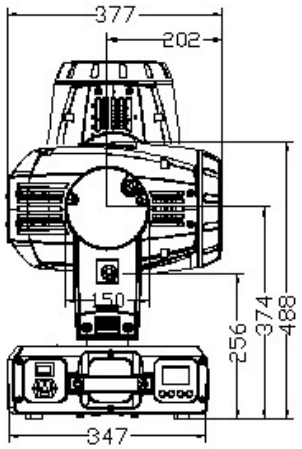


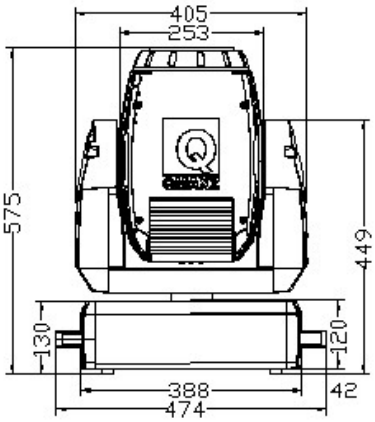
QS(E)575S/QS(E)575W

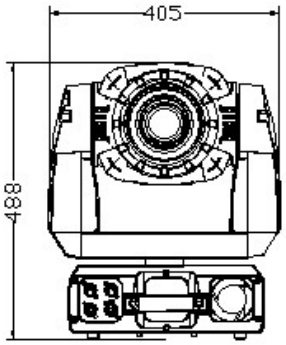




10.3 Dimensional Drawings







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11. DMX PROTOCOL

11.1 QS250S / QSE400S / QS(E)575S

QS-series DMX channel list				QS250S/QSE400S/QS(E)575S
8 or 16 bit	**Channel**	**Channel name**	**DMX value**	**Function**
8/16BIT	1	CONTROL	0-9	Idle
			10-16	Invert display (hold for 3sec)
			17-29	Idle
			30-36	Menu display off/on (hold for 3sec)
			37-49	Idle
			50-56	Reset all motors (hold for 3sec)
			57-69	Idle
			70-76	Reset all motors except pan/tilt motor (hold for 3sec)
			77-89	Idle
			90-96	Reset color,strobe,gobo1 (hold for 3sec)
			97-119	Idle
			120-126	Reset gobo 2, prism, focus (hold for >10sec)
			127-219	Idle
			220-226	Lamp off (hold for 10sec)
			227-239	Idle
			240-255	Lamp on (hold for 10sec)
8/16BIT	2	DIMMER	0-25	Dimmer closed
			26-249	Dimmer 0% -> 100%
			250-255	Dimmer open
8/16BIT	3	SHUTTER	0-9	Shutter closed
			10-19	Shutter open
			20-65	Strobe, slow -> fast
			66-75	Shutter open
			76-107	Opening pulse, slow ->fast
			108-139	Closing pulse, slow ->fast
			140-149	Shutter open
			150-159	Random strobe, fast
			160-169	Random strobe, medium
			170-179	Random strobe, slow
			180-189	Shutter open
			190-199	Random opening pulse, fast
			200-209	Random opening pulse, medium
			210-219	Random opening pulse, slow
			220-229	Random closing pulse, fast
			230-239	Random closing pulse, medium
			240-249	Random closing pulse, slow
			250-255	Shutter open

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8 or 16 bit	Channel	Channel name	DMX value	Function
8/16BIT	4	PAN	0-255	Pan 540° (128=neutral)
8/16BIT	5	TILT	0-255	Tilt 250° (128=neutral)
8/16BIT	6	COLOR	0-9	Open
			10-19	Dark blue
			20-29	Yellow
			30-39	Purple
			40-49	Green
			50-59	Orange
			60-69	Light Blue
			70-79	Red
			80-89	Open
			90-193	Colour change by adjusting degree
			194-223	CW, fast-slow
			224-225	Stop
			226-255	CCW, slow-fast
8/16BIT	7	GOBO2 (fixed)	0-9	Open
			10-19	Gobo 1
			20-29	Gobo 2
			30-39	Gobo 3
			40-49	Gobo 4
			50-59	Gobo 5
			60-69	Gobo 6
			70-79	Gobo 7
			80-94	Gobo 8
			95-109	Gobo 8, shake slow -> fast
			110-124	Gobo 7, shake slow -> fast
			125-139	Gobo 6, shake slow -> fast
			140-154	Gobo 5, shake slow -> fast
			155-169	Gobo 4, shake slow -> fast
			170-184	Gobo 3, shake slow -> fast
			185-199	Gobo 2, shake slow -> fast
			200-214	Gobo 1, shake slow -> fast
			215-224	Open
			225-255	CCW scroll, slow -> fast

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8 or 16 bit	Channel	Channel name	DMX value	Function
8/16BIT	8	GOBO1 (rotating)	0-19	Open
			20-39	Gobo 1
			40-59	Gobo 2
			60-79	Gobo 3
			80-99	Gobo 4
			100-119	Gobo 5
			120-144	Gobo 6
			145-159	Gobo 6, shake slow -> fast
			160-174	Gobo 5, shake slow -> fast
			175-189	Gobo 4, shake slow -> fast
			190-204	Gobo 3, shake slow -> fast
			205-219	Gobo 2, shake slow -> fast
			220-234	Gobo 1, shake slow -> fast
			235-255	Open
8/16BIT	9	GOBO1 ROTATION	0-125	Gobo indexing 0° - 360°
			126-128	Default index
			129-190	CW rotation, slow -> fast
			191-193	Stop
			194-255	CCW rotation, slow -> fast
8/16BIT	10	FOCUS	0-255	focus o% > 100%
8/16BIT	11	Prism	0-127	Open
			128-255	Prism
8/16BIT	12	PRISM ROTATION	0-125	Prism indexing 0° - 360°
			126-128	Stop
			129-190	CW rotation, slow -> fast
			191-193	Stop
			194-255	CCW rotation, slow -> fast
8 or 16 bit	**Channel**	**Channel name**	**DMX value**	**Function**
16BIT	13	BLACKOUT	0-29	No blackout
			30-89	Prism change, blackout
			90-119	Gobo change, blackout
			120-149	Idle
			150-179	Colour change, blackout
			180-209	Pan/tilt movement, blackout
			210-239	All function change, blackout
			240-255	No blackout
16BIT	14	PAN/TILT SPEED	0-9	Fastest
			10-225	X/Y speed, fast-slow
16BIT	15	PAN FINE	0-255	Pan fine
16BIT	16	TILT FINE	0-255	Tilt fine

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11.2 QS250W / QSE400W / QS(E)575W

QS-series DMX channel list				QS250W/QSE400W/QS(E)575W
8 or 16 bit	**Channel**	**Channel name**	**DMX value**	**Function**
8/16BIT	1	CONTROL	0-9	Idle
			10-16	Invert display (hold for 3sec)
			17-29	Idle
			30-36	Menu display off/on (hold for 3sec)
			37-49	Idle
			50-56	Reset all motors (hold for 3sec)
			57-69	Idle
			70-76	Reset all motors except pan/tilt motor (hold for 3sec)
			77-89	Idle
			90-96	Reset colour wheel, strobe, zoom (hold for 3sec)
			97-119	Idle
			120-126	Reset CMY, CTO (hold for 3sec)
			127-219	Idle
			220-226	Lamp off (hold for 5s)
			227-229	Idle
			240-255	Lamp on
8/16BIT	2	DIMMER	0-19	Dimmer closed
			20-249	Dimmer 0% -> 100%
			250-255	Dimmer open
8/16BIT	3	SHUTTER	0-9	Shutter closed
			10-19	Shutter open
			20-65	Strobe, slow -> fast
			66-75	Shutter open
			76-107	Opening pulse, slow -> fast
			108-139	Closing pulse, slow -> fast
			140-149	Shutter open
			150-159	Random strobe, fast
			160-169	Random strobe, medium
			170-179	Random strobe, slow
			180-189	Shutter open
			190-199	Random opening pulse, fast
			200-209	Random opening pulse, medium
			210-219	Random opening pulse, slow
			220-229	Random closing pulse, fast
			230-239	Random closing pulse, medium
			240-249	Random closing pulse, slow
			250-255	Shutter open
8/16BIT	4	PAN	0-255	Pan 540° (128=neutral)
8/16BIT	5	TILT	0-255	Tilt 250° (128=neutral)

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8 or 16 bit	Channel	Channel name	DMX value	Function
8/16BIT	6	COLOR1	0-9	open
			10-19	Dark blue
			20-29	Yellow
			30-39	Purple
			40-49	Green
			50-59	Orange
			60-69	Light Blue
			70-79	Red
			80-89	open
			90-193	Colour change by adjusting degree
			194-223	CW, fast -> slow
			224-225	Stop
			226-255	CCW, slow ->fast
8/16BIT	7	CYAN	0-255	Cyan 0% -> 100%
8/16BIT	8	MAGENTA	0-255	Magenta 0% -> 100%
8/16BIT	9	YELLOW	0-255	Yellow 0% -> 100%
8/16BIT	10	CTO	0-255	CTO 0% -> 100%
8/16 BIT	11	CMYK SPEED	0-9	CMYK change speed, fast
			10-255	CMYK speed fast > slow
8/16BIT	12	ZOOM	0-255	Zoom 0% -> 100% (15° > 25°)
16BIT	13	BLACKOUT	0-149	No blackout
			150-179	Colour change, blackout
			180-209	Pan/tilt movement, blackout
			210-239	All functions, blackout
			240-255	No blackout
18BIT	14	PAN/TILT SPEED	0-9	Fastest
			10-225	Pan/tilt speed, fast -> slow
16BIT	15	PAN FINE	0-255	Pan fine
16BIT	16	TILT FINE	0-255	Tilt fine

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12. TROUBLESHOOTING

Problem	Possible cause	Solution
The fixture is not doing anything and looks completely dead	There is no power to the fixture	Check the mains power supply and power-plug connections
	Power input fuse is blown	Replace the external main fuse (5A), located in the mains connector on the power panel.
	Secondary fuse on the main PCB board is blown,	Replace the PCB board fuse (10A), located in on the main PCB board inside the fixture.
Fixture is powered up and performs reset functions but does not respond on DMX input	The controller is not or not well connected	Check the controller connection
	The connection cables are broken or not wired in the proper way.	Check the connection cables for damage or false wiring, see chapter 6
Fixture is responding on DMX input but makes uncontrolled moves or function changes	Poor data quality from controller	Check controller data quality with a DMX tester, also check the data link connection, and check cables for correct connection or damage, see if one of the fixtures in the link is causing the problem (bad DMX data board).
	Bad data link connection	Check DMX cables for proper connection, correct wiring, and repair cables if damaged.
	DMX link not terminated with 120 Ohm termination plug.	Insert DMX terminator in the last fixture of the link.
	Both 3 and 5 pin connectors are used on one of the fixtures.	Use only 3 or 5 pin DMX connectors and not both at the same time.
	A fixture has a malfunctioning DMX data board.	Try if the problem still occurs when taking the fixture with the probable defective DMX data board out of the link. Contact your dealer for replacing the DMX data board.
	The fixture is not on the correct DMX start address.	Check the fixtures DMX start address.
	The fixtures and controller data rates do not match.	Make sure the DMX rates of the controller matches the DMX specs. of the fixture.
Fixture has no light output	The mains power supply does not match the fixture requirements.	Check if the mains power supply is matching the fixture requirements, if not disconnect the fixture and make sure the mains supply is changed in the fixtures required supply before connecting again.
	Lamp is missing or defective.	Disconnect the mains power supply and replace the lamp (see chapter 5).
	Lamp or fixture is to hot for restrike.	Let the fixture cool down and try again. Clean fans and air vents. Try an other temp mode (see menu)
	Shutter is in blackout mode.	Take shutter from blackout mode or perform a reset.
After start-up the lamp goes off or goes off and on with intervals	Fixture lamp is to hot	Let the fixture cool down and try again. Clean fans and air vents. Try an other temp mode (see menu)
	The mains power supply does not match the fixture requirements.	Check if the mains power supply is matching the fixture requirements, if not disconnect the fixture and make sure the mains supply is changed in the fixtures required supply before connecting again.
	Lamp has reached the end of his lifetime cycle.	Disconnect the mains power supply and replace the lamp (see chapter 5).

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13. INFO

For more detailed technical info or support visit the QMAXZ website at www.qmaxz.com or contact your dealer.

All QMAXZ products have CE approvals and are made with the greatest care for your safety and liability, use the QMAXZ products always according to the instructions in the manual.

QMAXZ products are for professional use only and are not suitable for domestic use; they should be handled and operated by a professional and skilled person only to prevent any danger.

If there is any doubt of safe operation during the products lifetime please contact your dealer or QMAXZ lighting at all times to check whether it is safe to use the product before operating it.

QMAXZ lighting
Mr. Strikstraat 8
5708 GB Helmond, The Netherlands
Tel: +31 492 564 144
Fax: +31 492 526 285
info@qmaxz.com

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